PATENT
Customer No. 22,852
Attorney Docket No. 02473.0018

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:	)	
	)	
Robin TARRY et al.	)	Group Art Unit: 3712
	)	
Application No.: 09/225,574	)	Examiner: Bena B. MILLER
	)	
Filed: January 5, 1999	)	
	)	
For: VIDEO INSTRUCTIONAL SYSTEM AND METHOD FOR TEACHING MOTOR SKILLS	)	Confirmation No.: 2324

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

REPLY BRIEF UNDER 37 C.F.R. § 1.193

Pursuant to the provisions of 37 C.F.R. § 1.191 - 1.198, this is a Reply Brief to the Examiner's Answer mailed July 13, 2004, with a two-month period for reply extending to September 13, 2004. This Reply Brief is being filed in triplicate and addresses the new points in the "Response to Argument" section of the Examiner's Answer.

A. The Examiner Has Erroneously Drawn a Distinction Between "Real-Time" and "Live."

The Examiner seeks to dismiss claim distinctions between the claimed invention and the prior art by arguing that the claims use the term "real-time" rather than "live," although the Examiner concedes the prior art Mann reference does not disclose a "live" display. While the word "live" is not recited in Appellants' claims, the distinction the Examiner has drawn in his response is without merit. To the contrary, the words "real-time" and "live" convey the same meaning, and Appellants use of "real-time" does distinguish over the prior art.

The claims make liberal use of the term "real-time." Independent claim 38 recites a "system for providing **real-time** instructional feedback of a user engaged in an activity comprising: a video camera forming a **real-time** video signal of the user engaged in the activity; a processor generating an instructional signal; a video controller for receiving the instructional signal and the **real-time** video signal and combining the received signals to form a composite video signal with an instructional image superimposed onto an image of the user engaged in the activity; and a first display device displaying the composite video signal to the user in a manner that allows the user to perform the activity while viewing the displayed signal" (emphasis added). Independent claim 48 recites a "method for providing **real-time** instructional feedback of a user engaged in an activity" including similar recitations (emphasis added).

Although the Examiner must construe the claims as broadly as possible in a manner that is consistent with the specification, (*In re Bass*, 314 F.3d 575, 577, 65 USPQ2d 1156, 1158 (Fed. Cir. 2002)), the Examiner must construe claims as the Federal Circuit has directed. Construing claim language begins with the ordinary and

customary meaning of the terms used in the claims. *See Arlington Indus., Inc. v. Bridgeport Fittings, Inc.*, 345 F.3d 1318, 1326, 68 USPQ2d 1439, 1444 (Fed. Cir. 2003).

The dictionary defines "real-time" as meaning "the actual time during which something takes place." *Merriam-Webster's Collegiate Dictionary*, Tenth Edition, 2001. "Real-time" is also defined in the computer-related fields to mean "an immediate response." *See* Freedman, *The Computer Desktop Encyclopedia*, 1996, p. 719. "Any electronic operation fast enough to keep up with its real-world counterpart" such as "transmitting **live** video" (emphasis added). *See* id. Thus, the ordinary meaning of "real-time" in reference to a video signal means a "live" video signal.

The specification also uses the term "real-time" synonymously with "live." For example, the specification includes the following:

> Systems and methods consistent with the present invention, as described herein, display a **live** image of a student to the student while the student is performing a physical activity. The student can easily switch between seeing his natural field of view and seeing the **live** video image of himself merely by refocusing his eyes. The student can therefore gain insight into improving the performance of the physical activity, such as a golf swing, during the physical activity.
>
> Fig. 1 is a diagram illustrating one system consistent with the present invention. Video camera 101 records student 103. The video signal output from video camera 101 is transmitted, in **real-time**, to head-mounted display 102 worn by student 103. Head-mounted-display (HMD) 102 projects the video signal image seen by camera 101 onto the retinas of the student.

Page 4, lines 6-16 (emphasis added).

The claims are thus consistent with the specification, and the Examiner cites no statements in the prosecution history that call for anything other than giving "real-time"

its ordinary meaning. Consequently, the Examiner's distinction between "real-time" in the claims and a "live" video signal cannot form the basis for any rejection.

B. The Examiner Has Misinterpreted When the "Real-Time" Feedback Recited in Appellants' Claims Must Occur.

As his sole rebuttal to Appellant's arguments, the Examiner contends that Mann teaches a video of receiving the instructional signal and the "real-time" (although not "live") video signal, citing page 18, col. 8, paragraphs 2-3. *See* Examiner's Answer, page 3. The Examiner reaches this conclusion by contending that the video recording of the student taught by Mann is done in real-time, and consequently, Appellants' claimed limitations are met. *See* id.

The Examiner's interpretation would render the term "real-time" meaningless. All video recordings, when made, occur in "real-time." The claims, however, recite providing "real-time instructional feedback of a user engaged in an activity," involving a "real-time" video signal. The claims also recite that a video camera (not recorder) forms the "real-time" video signal used to provide "real-time" feedback. Mann, however, used a recording of the student that is prepared ahead of time, then carefully matched to another recording, a step that requires substantial computing resources, and then played back at a time after its recording. See col. 13, lines 39-41 and 56-62. Thus, Mann teaches that the student must observe the video recording after the student has performed the activity. This is hardly the claimed system and method for "providing real-time instructional feedback" that allows "the user to perform the activity while viewing the displayed signal," as claims 38 and 48 recite. Therefore, the basis for the Examiner's rejection is without merit, and the rejection should be reversed.

C. The Examiner's Alleged Motivation to Combine the Applied Prior Art is Premised on an Erroneous Construction of the Claim Language.

The Examiner advances a motivation to combine Brostedt with Mann premised on the erroneous conclusion that Mann teaches real-time display. *See* Examiner's Answer, pages 4-5. The Examiner seems to equate the "real-time" display in Brostedt with that in Mann. Because, as explained above, Mann does not teach a "real-time" display, the basis for such a motivation is gone.

D. The Examiner Admits There is No Motivation to Combine the Applied Prior Art

The Examiner admits that Mann teaches complex processing operations that are performed to match an individual performance model to a student's performance in column 15 through column 34. *See* Examiner's Answer, pages 4-5. The Examiner, however, ignored that this very complex processing would suggest to one of ordinary skill in the art not to use Mann to provide real-time instructional feedback of a user engaged in an activity, such as in Brostedt. Thus, Appellants' arguments stand unchallenged because the processing-intense operation of Mann is inconsistent with real-time displays, and so there would be no motivation to combine Mann with Brostedt.

CONCLUSION

For these reasons and the reasons given in Appellants' Appeal Brief filed April 28, 2004, Appellants respectfully request the Board to reverse the final rejection of claims 28-54.

Please charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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Dated: September 10, 2004

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